

in these subjects; but they occasionally occur on the cooling of the fluid, sometimes in the form of urate of soda or ammonia, at other times crystallized and more or less coloured rhombs of uric acid. Class 3.—Urine of individuals who had suffered more or less frequently from attacks of acute gout, of varying degrees of intensity, examined at the time of complete freedom from any symptoms of the disease. Several determinations were made on the urine of six individuals, and the following results arrived at: In no one of the six patients' urine did the amount of uric acid reach the quantity usually considered to be the average in health; in most of them it was far below, and it would appear that the kidneys in such individuals are apt to lose some of their excretory power for this body, a circumstance which must necessarily render the blood impure, and account for the liability which such patients possess to periodic visitations of this malady, and the great difficulty of effecting a radical cure of the disease.

*Part 2.*—Devoted to an examination of the influence of colchicum upon the urine. The usual opinions held by different authorities, as Christison, Chelius, etc., upon the *modus operandi* of this drug, were first related, and many of the analyses brought forward in their support were shown to be very fallacious, the error arising not from any fault in the analyses themselves, but from small specimens of urine, passed at particular times of the day, being examined, and no account taken of the twenty-four hours' elimination. Between fifty and sixty analyses, showing the amount of the uric acid eliminated, were given, together with numerous determinations of the urea. The results of these observations on the action of colchicum were as follows: In one case, where no gouty affection existed, and no febrile disturbance was present, colchicum appeared to have the effect of slightly diminishing the quantity of urine, and likewise of diminishing somewhat the excretion of uric acid. In a second case, similar to the above, the influence of the medicine was notably to diminish the quantity of urine, the uric acid being slightly increased, but the increase was less than a quarter of a grain per diem. In case 3, a gouty patient recovering from an acute attack, the uric acid was somewhat increased during the administration of colchicum, but not in a greater degree than frequently occurs under such circumstances when no medicine is given. In case 4, both the urine and the uric acid were diminished by the influence of the drug; and so on for the other cases. The author considered, as the result of his analyses, 1st. That there is no evidence to prove that colchicum produces its effects upon the system by causing the kidneys to excrete an increased amount of uric acid, but that, in fact, the reverse would seem to hold good. 2d. That colchicum is not always a diuretic, but often diminishes the renal secretion, especially when its action is exerted upon the alimentary canal. 3d. That colchicum has no marked influence on the excretion of urea. An appendix to the paper contained the results of seventy-two analyses, performed on consecutive days, of the urine of a gouty patient; and the results exemplified, in a marked manner, the peculiar mode in which uric acid is frequently eliminated in such cases, and also tended to confirm the conclusions arrived at with respect to the action of colchicum upon the excretion of this principle.—*Med. Times and Gaz.*, June 26, 1858.

23. *Abdominal Typhus.*—From 100 dissections, from upwards of 1000 cases, Dr. LEBERT, of Zurich, deduces the following results:—

*Intestinal affection* is not always present, and bears no relation to the intensity of the disease—appearing rather to be a co-effect of the fever than sufficient for its explanation. In fatal cases, the intestinal affection has not only formed a slough or sore, but has even frequently ended in resolution; and it is not always easy to discover whether the intestinal affection has entirely failed, or whether it has only been completely resolved. The intestinal affection of typhus bears a very strong resemblance to that of cholera, only in the latter there is usually more serous infiltration; it consists entirely in an increased formation of the normal cell-elements, and there is no such thing, as far as our author has seen, as a specific typhus exudation; while so many other diseases which have a typhoid condition, as pyæmia, severe icterus, meningitis cerebrospinalis, and the grave cases of acute exanthemata, are accompanied by swell-

ing of the intestinal glands and the spleen, that we are involuntarily led to the conclusion, that there is in many infectious diseases a peculiar connection between the pathological poisoning and those glands whose office it is to prepare the blood elements; and therefore the intestinal alterations in typhus have a much deeper and more general signification than is usually believed. From the eighth to the eleventh day, the cellular infiltration of the mesenteric glands, also that of the isolated and agminated glands, is very distinct; they are soft and swollen, as are also the glands of the large intestine. Very soon erosions, ulcerations, and other anatomical alterations attendant on intestinal catarrh, occur, which are most frequently observed from the eleventh to the fifteenth day; and in this very period, also, the phenomena of resolution are often observed. But the intestinal alterations of typhus are very far from being bound down to typical phases; and there is even an occasional disproportion between the extent of the disease in the isolated and agminated glands, the latter being peculiarly its seat, while it is often entirely wanting in the former. In the course of the third week the intestinal alterations are at their height; in one case only, pus was found in the mesenteric glands, partly infiltrated, partly in the fluid state (as an abscess). In the fourth week the ulceration generally continues, the catarrh of the colon and ileum already retrogressive; the marrow-like infiltration of the mesenteric glands at its height, and partly retrograde. One man, however, dead on the twenty-fourth day, had only a few agminated glands slightly swollen, and the seat of superficial ulceration. Another case, dead after the twenty-eighth day, showed undeniable symptoms of resolution without ulceration; the mesenteric glands were partly swollen, partly retrograde; Peyer's patches of a slaty hue, firm and granular, partly shrivelled, and only one small ulcer in the processus vermiformis. Tendency to cicatrization was only once observed on the twenty-fourth day. This stage occurs generally much later than authors have supposed. In the fifth week we have for the first time a grayish coloration of the edges of the ulcers, which now begin to fine down, but show only exceptionally a tendency to reparation. In this week the author observed three cases of resolution without ulceration, in only one of which was there trifling ulceration. In one case, dead after the thirtieth day, Peyer's patches were still slightly swollen, grayish yellow, covered with a few small brown ecchymotic spots; the neighbouring mucous membrane hyperæmic; the spleen large and soft; the mesenteric glands enlarged. Another case died on the thirty-fifth day; the spleen was still large and soft; most of Peyer's patches had a slaty-gray appearance; and only a few isolated glands showed traces of cicatrized ulcers. During this week the mesenteric glands are generally partly diminished in size, partly soft and swollen, and also of a slaty hue, particularly on the surface, whilst the interior is of a dull-yellow, cheesy aspect, as of shrivelled nuclei, already undergoing molecular disintegration; these disintegrated elements are probably subsequently absorbed, and the glands return to their normal state. During the sixth week, reparation proper commences; the edges of the ulcerations long retain their slaty hue, and the different portions of the intestinal canal are unequally advanced; the mesenteric glands are by this time restored to their normal state. In this week also the author found a case of undeniable resolution without trace of ulceration; Peyer's glands being slaty in hue, partly reticulated, partly granular and shrivelled. In the seventh week complete resolution is the normal condition; yet our author found three cases in which, although the edges of the ulcers were slate-coloured, their basis showed no trace of healing. Such are the cases in which tardy perforation occurs, and those also in which the patients sometimes die in the third month from sequelæ. Once in the eleventh week, and another time after three and a half months, our author found cicatrization uncommenced; in both cases a diphtheritic diarrhœa, accompanied by numerous ulcerations in the colon, was present; our author supposes that fatty degeneration of the textural elements of the ulceration is the cause of its not healing. He mentions as very remarkable two cases, one dead in the ninth week, the other in the eleventh, in both of which distinct villous granulations (Zotten) were produced on the surface of the sore, while in every other case the cicatrix had a striped fibroid appearance, with scattered gray pigment

granules and corpuscles; such cicatrices were also distinctly vascular. As one-fifth of our author's recorded observations comprised cases in which the intestinal alterations failed entirely, were very trifling, or ended in resolution, bearing no relation to the severity of the disease, which severity bore also no relative connection to the typhoid diarrhœa, so he concludes that the distinction between abdominal typhus and exanthematic typhus without intestinal alteration cannot be strictly defined; much must still be left for future observers. With respect to the other textures and organs, our author found, 1st, an important relative frequency of peritonitis in ileo-typhus; nine cases of perforative, and seven of simple peritonitis, in 100 deaths; besides numerous unmistakable recoveries from similar accidents, extending in time from the seventh day to the fourth month, being most frequent in the second month. The splenic enlargement, more or less constantly present, bore no relation to the intensity of the typhous process. Splenic softening, depending on hyperæmia and increased cell-formation, was a much more regular concomitant. The liver, in more than one-fifth of all cases observed, was more or less fatty; and in every case analyzed by Professor Stüdel, leucin and tyrosin were found, while, so far as known to our author, sugar has not been found in a typhous liver; so he considers it extremely probable that alterations of the liver not only exist during the typhous process, but probably have an intimate relation to it. The kidneys in the first two weeks were somewhat swollen and hyperæmic; later in the disease the kidneys were twelve times found to present more serious alteration; the size normal, or but slightly increased; the cortical substance decolorized, with here and there vascular points and stripes, the decolorization intruded partly on the pyramids; and here there was found, first, on the fourteenth day, generally about the fourth week, increased cell-formation in the convoluted ducts, mixed with a fine granular, albuminous infiltration, which subsequently seemed to undergo fatty degeneration; in most of these cases no albumen had been detected in the urine during life. A few cases of ileo-typhus complicated with Bright's disease recovered. The heart in the later stages of typhus becomes flabby, thin and pale, and frequently fatty, proving thus a probable source of death in protracted cases. Ulceration of the larynx, observed by Rokitsky, Vogel, and Rheiner, were never seen at Zurich; pleurisy was present eight times; once the typhus commenced with pleurisy, which at death, on the forty-sixth day, was so far healed that only adhesions and increased injection remained. Occurring at an early period, it generally terminated favourably; and even as sequela, which it most frequently was, it was only then very serious when double, or the patient much reduced. The most frequent alteration of the lung was hyperæmia, with dark red, violet, or a more brownish colour, compact appearance, and a smooth cut surface, with distinct collapse of the lung-cells. This condition has been termed carnification or splenization when extensive, and atalektasis when more circumscribed. The author observed this condition twenty-one times diffuse and lobar, and six times scattered and lobular. The diffuse form is much more common, if to it we add those numerous cases in which hypostases showed a tendency to pass into carnification. The lobular atalektasis had a direct relation to the bronchitic affection, and was most frequent when that was severe.

Recent emphysema is also by no means an infrequent concomitant of typhus. Lebert observed it thirteen times, and connects it with intense capillary bronchitis. Pneumonia was a rare complication, occurring but five times—twice lobular, and three times general and lobar; apoplexy of the lung occurred eight times. Catarrh and bronchitis, with their sequelæ hypostasis and carnification, seem to belong to the typhous process; while laryngitis, pleurisy, pneumonia, etc., are only accidental complications or sequelæ, and tuberculosis and typhus seem to a certain extent to antagonize one another. The nervous centres afford no anatomical explanation of the serious cerebral symptoms so often occurring in ileo-typhus. Meningeal hyperæmia, and œdema under the arachnoid, are very frequent. Lebert found, however, only thrice increase of the ventricular fluid, and also three times effusion of blood in the membranes, and twice effusion of blood in the brain substance itself; once there was men-

ingitis with sero-purulent exudation on the surface of the brain.—*Ed. Med. Journ.*, Aug., 1858, from *Prager Vierteljahrsschrift, f. d. Prakt. Heilk.*, 1858.

24. *Incubation of Measles.*—The period of incubation of measles has been variously estimated. Dr. KERSCHENSTEINER, Assistant in the Munich Hospital for Children, has endeavoured to fix it by observing the day on which the eruption appeared on the second affected child of a family, reckoning from the day it appeared on the first; and only such cases were collected and tabulated as could be clearly shown to have no communication with any other measles patients. Of 37 cases so collected, the eruption appeared in 34 between the 10th and 12th day.—*Edin. Medical Journal*, June, 1858, from *Bayer. ärztl. Intell.*

25. *Inversion of the Body for the Relief of the Symptoms produced by the Passage of a Renal Calculus along the Ureter.*—Prof. SIMPSON exhibited to the Edinburgh Medico-Chirurgical Society (May 5, 1858) a small oblong renal calculus, from a patient who had passed them at different times, and always suffered terribly during their transit from the kidney to the bladder. This patient had been now twice relieved of the agonizing symptoms accompanying the passage of the calculus by inversion of the body. Prof. S. had subjected her to this treatment in consequence of his belief that the passing calculus, falling down into, and becoming impacted in the ureter, acted at its point of arrestment as a pea-valve, and by its accumulating the urine above, or in the pelvis of the kidney and higher portion of the ureter, led to the accompanying distress by the morbid distension of these portions of the urinary ducts. When the body was inverted, and the affected side manipulated, the calculus probably fell backward, and consequently upwards, by its own gravity. At all events, whatever be the explanation, the practice in this and in one other case had immediately relieved the patient. He had seen partial relief from changed position in one case also of gallstones. Position was a more important therapeutical agent than was generally supposed, not only in medicine, but also in surgery and therapeutics. Several years ago—and shortly after the famous case of Mr. Brunel—Dr. S. saw, with Dr. Patterson and Dr. James Duncan, a case in which a shilling passed into the windpipe, and where upon inversion of the patient the shilling fell back into his mouth, thus saving the patient from the operation of tracheotomy. Dr. Duncan had published a full account of the case. In prolapsus of the umbilical cord in labour, the mere gravity of the cord in the usual supine position of the patient was no doubt one great cause of the difficulty of retaining it in utero, above the head or presenting part of the child, when once returned. But some late cases and observations proved that the return and retention of the cord could be effected with comparative facility, if the aid of position was called in, and the patient was placed upon her face, or upon her hands and knees, till the presenting part filled the brim of the pelvis; for in this prone position the cord gravitated toward the fundus uteri, instead of towards the os.—*Edinburgh Medical Journal*, July, 1858.

26. *The Diagnosis of Deafness.* By Dr. ERHARD, of Berlin.—By careful observation of many cases of normal hearing, or of one-sided deafness, the author came to the conclusion that almost every possible alteration of the external passages or of the tympanum, if not excessive, might coincide with perfect audition. He even observed a case of congenital absence of the membrana tympani, together with that of the malleus and incus, without perceptible influence on the power of hearing. He was, therefore, led to seek for new and better diagnostic marks in the phenomena of audition itself, as manifested in the deaf. With this view he employed a series of watches, of varying intensity of stroke. For normal hearing, four conditions are necessary: 1st. Complete integrity of the acoustic apparatus; 2d. Complete integrity of the nervus acusticus, from its central origin to its finest peripheral branch on the scala tympani; 3d. Complete integrity of the organic dynamic relations of the auditory apparatus; 4th. Complete integrity of the sensorium. Any alteration in these conditions produces a corresponding alteration in the power of hearing.

As every material conducts sound more or less perfectly according to